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(54) **PATCH-SIZED FLUID DELIVERY SYSTEMS AND METHODS**

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(57) **ABSTRACT**

A patch-sized fluid delivery device may include a reusable portion and a disposable portion. The disposable portion may include components that come into contact with the fluid, while the reusable portion may include only components that do not come into contact with the fluid. Redundant systems, such as redundant controllers, power sources, motor actuators, and alarms, may be provided. Alternatively or additionally, certain components can be multi-functional, such a microphones and loudspeakers that may be used for both acoustic volume sensing and for other functions and a coil that may be used as both an inductive coupler for a battery recharger and an antenna for a wireless transceiver. Various types of network interfaces may be provided in order to allow for remote control and monitoring of the device.